

JUNIPER BLIGHT

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Juniper blight caused by the fungus *Cercospora sequoiae* Ell. & Ev. (*Cercospora thujina* Plakidas) is a serious disease found on Eastern red cedar (*Juniperus virginiana* L.) in Florida and other southern states (2,3). Red cedar is a very popular ornamental evergreen which is grown extensively for sale as Christmas trees. Losses from Juniper blight are considered to be of major economic importance in Florida.

The fungus *C. sequoiae* was first reported in 1887 on *Sequoia gigantea* (Lindl.) Decne. in Pennsylvania (1). The host range of this fungus also includes oriental arborvitae (*Thuja orientalis* L.) and Italian cypress (*Cupressus sempervirens* L.) (7), Arizona cypress (*C. arizonica* Greene) (8,9), Portuguese cypress (*C. lusitanica* Mill.), Monterey cypress (*C. macrocarpa* Hartw. ex Gord), Sawara cypress (*Chamaecyparis pisifera* (Sieb. & Zucc) Endl.) (2), and Rocky Mountain juniper (*Juniperus scopulorum* Sarg.) (6).

SYMPTOMS. The initial symptom of the disease is a browning of the needles next to the stem at the base of the tree. Infection progresses upward and outward until only the branch tips remain green on severely infected plants (Fig. 1). Small trees may be killed within a year. Sporulation of the fungus occurs on the upper side of the needles.

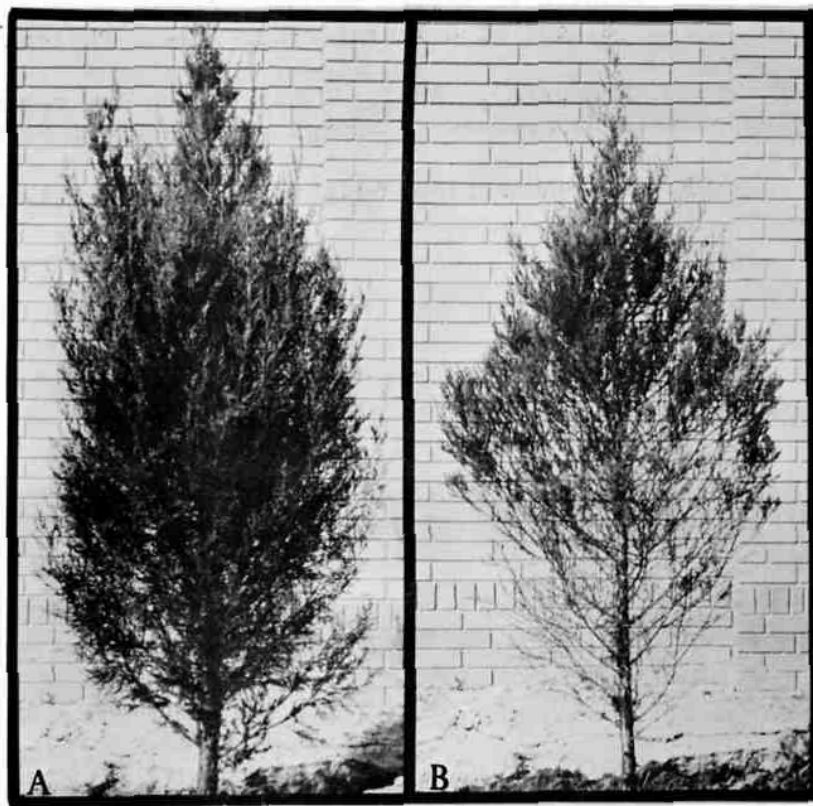


Fig. 1. Juniper blight caused by *Cercospora sequoiae* A) healthy red cedar tree; B) infected tree showing disease development.

The symptoms caused by *Cercospora sequoiae* Ell. & Ev. var. *juniperi* Ell. & Ev. (*Exosporium glomerulosum* (Sacc.) Hohn) (4) and *Phomopsis juniperovora* Hahn (5) on Eastern red cedar should not be confused with those caused by *C. sequoiae*. The former causes a development of juvenile needles on infected large branches whereas *P. juniperovora* causes a dieback of branches.

CONTROL. Bordeaux mixture (8-8-100), applied at 3-4 week intervals, has been reported to control this fungus on Eastern red cedar (6). More recently, fixed copper, maneb, and Daconil have been found to be very effective for control (personal communication). These fungicides should be applied according to the directions of the manufacturer.

Literature Cited

1. Ellis, J. B. and B. M. Everhart. 1887. Additions to *Cercospora*, *Gloeosporium*, and *Cylindrosporium*. *J. Mycology* 3:13-22.
2. Hodges, C. S. 1961. New hosts for *Cercospora thujina* Plakidas. *Plant Dis. Repr.* 45:745.
3. Hodges, C. S. 1962. Comparison of four similar fungi from *Juniperus* and related conifers. *Mycologia* 54(1):62-69.
4. Kelman, A., C. S. Hodges, and H. R. Garriss. 1960. Needle blight of red-cedar, *Juniperus virginiana* L. *Plant Dis. Repr.* 44:527-531.
5. McDaniel, A. T. and C. L. Wilson. 1962. A study of symptoms and control of *Phomopsis juniperovora* on Arizona cypress. *Plant Dis. Repr.* 46:364-365.
6. Peterson, G. W. and D. S. Wysong. 1968. *Cercospora* blight of Junipers: damage and control. *Plant Dis. Repr.* 52:361-362.
7. Plakidas, A. G. 1945. Blight of oriental arborvitae. *Phytopathology* 35: 181-190.
8. Thompson, G. E. and B. R. Murray. 1961. Distribution and control of *Cercospora thujina* on Arizona cypress in Georgia. *Plant Dis. Repr.* 45:731-733.
9. Wilson, C. L. 1961. An undescribed blight disease of Arizona cypress. *Plant Dis. Repr.* 45:96-98.